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Amendments to the Claims:

This listing of claims replaces all prior versions and listings of claims in the application:

Listing of Claims:

1. (currently amended): A method of measuring comprising:
providing an optical metrology target, the optical metrology target comprising:
a first periodic structure comprising at least two features, with each feature of the first periodic structure having a first width and the first periodic structure having a first pitch; and
a second periodic structure comprising at least two features, with each feature of the second periodic structure having a second width differing from the first width and the second periodic structure having a second pitch that differs from the first pitch;
illuminating the optical metrology target with a light source;
receiving an optical signal from the optical metrology target; and
analyzing the optical signal.
2. (original): The method of claim 1 in which analyzing the optical signal comprises determining the first pitch.
3. (original): The method of claim 2 in which analyzing the optical signal further comprises determining the second pitch.
4. (original): The method of claim 3 in which analyzing the optical signal comprises determining the first pitch and the second pitch simultaneously.
5. (original): The method of claim 1 in which the measurement is non-destructive.

6. (original): The method of claim 1 in which the light source comprises a coherent light source.

7. (original): The method of claim 1 in which the light source comprises a non-coherent light source.

8. (original): The method of claim 1 in which the light source comprises a light source in the visible spectrum.

9. (original): The method of claim 1 in which the light source comprises a light source in the ultraviolet spectrum.

10. (original): The method of claim 1 in which analyzing the optical signal comprises using a computer program.

11. (original): The method of claim 1, in which the optical metrology target comprises a standalone test pad.

12. (original): The method of claim 1, in which the optical metrology target mimics an electrical element.

13. (original): The method of claim 12, in which the optical metrology target mimics a circuit structure.

14. (original): The method of claim 13, in which the optical metrology target mimics a conductive structure.

15. (original): The method of claim 13, in which the optical metrology target mimics an insulated structure.

16. (original): The method of claim 15, in which the optical metrology target mimics a flash memory array.

17. (original): The method of claim 1, in which the optical metrology target comprises two or more electrical elements.

18. (original): The method of claim 1, in which the optical metrology target comprises a circuit structure.

19. (original): The method of claim 18, in which the optical metrology target comprises a conductive structure.

20. (original): The method of claim 17, in which the electrical element comprises a memory device element.

21. (original): The method of claim 17, in which the electrical element comprises a logic device element.

22. (original): The method of claim 1 in which each first feature comprises a width less than 100 nanometers.

23. (original): The method of claim 1 in which the first pitch is less than 100 nanometers.

24. (original): The method of claim 1 in which the first periodic structure is located adjacent to the second periodic structure.

25. (original): The method of claim 1 in which the first periodic structure is located so as to overlap the second periodic structure.

26. (original): The method of claim 1 in which an axis of the first periodic structure is parallel to an axis of the second periodic structure.

27. (original): The method of claim 1 in which an axis of the first periodic structure is aligned with an axis of the second periodic structure.

28. (original): The method of claim 1 in which at least one feature of the first periodic structure is a feature of the second periodic structure.

29. (original): The method of claim 1 in which at least one feature of the first periodic structure is aligned with a feature of the second periodic structure.

30. (original): The method of claim 1 in which at least one feature of the first periodic structure is connected to a feature of the second periodic structure.

31. (original): The method of claim 1 in which the features of the first periodic structure comprise nested features.

32. (original): The method of claim 31 in which a line-to-space ratio of the features of the first periodic structure comprises a value less than 1:3.

33. (currently amended): The method of claim 1 in which the features of the second periodic structure comprise isolated features.

34. (currently amended): The method of claim 33 in which a line[[-]]-to-space ratio of the features of the second periodic structure comprises a value greater than or equal to 1:3.

35. (original): The method of claim 1 in which the optical metrology target further comprises:

a third periodic structure comprising at least two features, the third periodic structure having a third pitch; and

a fourth periodic structure comprising at least two features, the fourth periodic structure having a fourth pitch that differs from the third pitch.

36. (original): The method of claim 35 in which:

the first periodic structure and the second periodic structure are aligned with respect to a first axis of the optical metrology target; and

the third periodic structure and the fourth periodic structure are aligned with respect to a second axis of the optical metrology target.

37. (original): The method of claim 36 in which analyzing the optical signal comprises determining the third pitch.

38. (currently amended): The method of claim ~~[[31]]~~ 37 in which analyzing the optical signal comprises determining the fourth pitch.

39. (original): The method of claim 1 in which a shape of at least two features of the first periodic structure comprises a rectilinear shape.

40. (original): The method of claim 1 in which a shape of at least two features of the first periodic structure comprises a curvilinear shape.

41. (original): The method of claim 1 in which the optical metrology target is provided in a first layer of a device.

42. (currently amended): ~~The method of claim 41 further comprising:~~ A method of measuring comprising:

providing an optical metrology target in a first layer of a device, the optical metrology target comprising:

_____ a first periodic structure comprising at least two features, the first periodic structure having a first pitch; and

_____ a second periodic structure comprising at least two features, the second periodic structure having a second pitch that differs from the first pitch;

providing a second optical metrology target in a second layer of the device, the second optical metrology target comprising:

a third periodic structure comprising at least two features, the third periodic structure having a third pitch; and

a fourth periodic structure comprising at least two features, the fourth periodic structure having a fourth pitch that differs from the third pitch;

illuminating the optical metrology target with a light source;

receiving an optical signal from the optical metrology target; and

analyzing the optical signal.

43. (original): The method of claim 42 in which analyzing the optical signal comprises determining the offset between the optical metrology target in the first layer of the device and the second optical metrology target in the second layer of the device.

44. (original): The method of claim 43 in which:

the third pitch of the second optical metrology target in the second layer of the device is equal to the first pitch of the optical metrology target in the first layer of the device; and

the fourth pitch of the second optical metrology target in the second layer of the device is equal to the second pitch of the optical metrology target in the first layer of the device.

45. (currently amended): An optical metrology target comprising:
a first periodic structure comprising at least two features, with each feature of the first periodic structure having a first width and the first periodic structure having a first pitch; and
a second periodic structure comprising at least two features, with each feature of the second periodic structure having a second width differing from the first width and the second periodic structure having a second pitch that differs from the first pitch.

46. (currently amended): The optical metrology target of claim 45 in which:
each first feature further comprises a length ~~and a width~~; and
each second feature further comprises a length ~~and a width~~.

47. (original): The optical metrology target of claim 46 in which the length of each first feature is equal to the length of each second feature.

48. (cancelled)

49. (currently amended): The optical metrology target of claim ~~[[46]]~~ 45 in which the width of each first feature is less than 100 nanometers.

50. (original): The optical metrology target of claim 45 in which the first pitch is less than 100 nanometers.

51. (original): The optical metrology target of claim 45 in which the first periodic structure is located adjacent to the second periodic structure.

52. (original): The optical metrology target of claim 45 in which the first periodic structure is located so as to overlap the second periodic structure.

53. (original): The optical metrology target of claim 45 in which an axis of the first periodic structure is parallel to an axis of the second periodic structure.

54. (original): The optical metrology target of claim 45 in which an axis of the first periodic structure is aligned with an axis of the second periodic structure.

55. (original): The optical metrology target of claim 45 in which at least one feature of the first periodic structure is a feature of the second periodic structure.

56. (original): The optical metrology target of claim 45 in which at least one feature of the first periodic structure is aligned with a feature of the second periodic structure.

57. (original): The optical metrology target of claim 45 in which at least one feature of the first periodic structure is connected to a feature of the second periodic structure.

58. (original): The optical metrology target of claim 45 in which the features of the first periodic structure comprise nested features.

59. (original): The optical metrology target of claim 58 in which a line-to-space ratio of the features of the first periodic structure comprises a value less than 1:3.

60. (original): The optical metrology target of claim 45 in which the features of the second periodic structure comprise isolated features.

61. (original): The optical metrology target of claim 60 in which a line-to-space ratio of the features of the second periodic structure comprises a value greater than or equal to 1:3.

62. (currently amended): An integrated circuit comprising:
at least one electrical element; and
an optical metrology target, the optical metrology target comprising:
a first periodic structure comprising at least two features, with each feature of the first periodic structure having a first width and the first periodic structure having a first pitch; and
a second periodic structure comprising at least two features, with each feature of the second periodic structure having a second width differing from the first width and the second periodic structure having a second pitch that differs from the first pitch.

63. (original): The integrated circuit of claim 62, in which the optical metrology target comprises a standalone test pad.

64. (original): The integrated circuit of claim 62, in which the optical metrology target mimics the electrical element.

65. (original): The integrated circuit of claim 64, in which the optical metrology target mimics a flash memory array.

66. (original): The integrated circuit of claim 64, in which the optical metrology target comprises a circuit structure.

67. (original): The integrated circuit of claim 62, in which the optical metrology target comprises two or more electrical elements.

68. (original): The integrated circuit of claim 62 in which the first periodic structure is located adjacent to the second periodic structure.

69. (original): The integrated circuit of claim 62 in which the first periodic structure is located so as to overlap the second periodic structure.

70. (original): The integrated circuit of claim 62 in which at least one feature of the first periodic structure is a feature of the second periodic structure.

71. (original): The integrated circuit of claim 62 in which at least one feature of the first periodic structure is aligned with a feature of the second periodic structure.

72. (original): The integrated circuit of claim 62 in which at least one feature of the first periodic structure is connected to a feature of the second periodic structure.

73. (original): The integrated circuit of claim 62 in which the optical metrology target further comprises:

a third periodic structure comprising at least two features, the third periodic structure having a third pitch; and

a fourth periodic structure comprising at least two features, the fourth periodic structure having a fourth pitch that differs from the third pitch.

74. (original): The integrated circuit of claim 73 in which:

the first periodic structure and the second periodic structure are aligned with respect to a first axis of the optical metrology target; and

the third periodic structure and the fourth periodic structure are aligned with respect to a second axis of the optical metrology target.

75. (original): The integrated circuit of claim 74 in which the first axis of the optical metrology target is perpendicular to the second axis of the optical metrology target.

76. (original): The integrated circuit of claim 74 in which analyzing the optical signal comprises determining the third pitch.

77. (original): The integrated circuit of claim 74 in which analyzing the optical signal comprises determining the fourth pitch.

78. (original): The integrated circuit of claim 62 in which a shape of at least two features of the first periodic structure comprises a rectilinear shape.

79. (original): The integrated circuit of claim 62 in which a shape of at least two features of the first periodic structure comprises a curvilinear shape.

80. (original): The integrated circuit of claim 62 in which the optical metrology target is provided in a first layer of a device.

81. (currently amended): ~~The integrated circuit of claim 80 further comprising:~~ An integrated circuit comprising:

at least one electrical element;

an optical metrology target provided in a first layer of a device, the optical metrology target comprising:

a first periodic structure comprising at least two features, the first periodic structure having a first pitch, and

a second periodic structure comprising at least two features, the second periodic structure having a second pitch that differs from the first pitch; and

~~providing~~ a second optical metrology target provided in a second layer of the device, the second optical metrology target comprising:

a third periodic structure comprising at least two features, the third periodic structure having a third pitch~~[[;]]~~, and

a fourth periodic structure comprising at least two features, the fourth periodic structure having a fourth pitch that differs from the third pitch.

82. (cancelled)

83. (currently amended): The integrated circuit of claim ~~[[82]]~~ 81 in which:

the third pitch of the second optical metrology target in the second layer of the device is equal to the first pitch of the optical metrology target in the first layer of the device; and

the fourth pitch of the second optical metrology target in the second layer of the device is equal to the second pitch of the optical metrology target in the first layer of the device.

84-90. (cancelled)